

REMARKS

This Amendment is submitted supplementary to the previous Amendment and in connection with the interview with the Examiner.

The Examiner's highly beneficial cooperation during the interview has been gratefully acknowledged.

In connection with this, it is believed that it would be advisable to amend claim 1, the broadest claim on file. Also, additional method claim 20 is submitted herewith as well.

It is believed to be advisable to explain the subject matter of the present invention.

As defined in the claims, in the present invention a method for locating objects enclosed in a medium is proposed, in which by means of at least one capacitive sensor device a detection signal is produced, which penetrates the medium, so that by an evaluation of the detection signal, in particular by an impedance measurement, information can be obtained about the object that is enclosed in the medium. The new features of the method of the present invention reside in that, for evaluation of the detection signal an algorithm is used, which separates

the measured signal into signal parts originating from the enclosing medium and signal parts originating from the object enclosed in the medium.

It is respectfully submitted that the patent to Bijawat applied by the Examiner does not disclose either an impedance measurement, or the features that for evaluation of the detection signal an algorithm is utilized, which provides a separation of the measured signal into signal parts from the enclosing medium and from the object.

While it is true that Bijawat provides a teaching for a measuring device for locating objects enclosed in a medium, it can not be considered obvious from this reference to provide an impedance measurement for obtaining information about an object enclosed in a medium.

In an impedance measurement the complex resistance is measured, or in other words both the value of the resistance (real part corresponding to the actual resistance) as well as the phase (imaginary part corresponding to the reactance or impedance). Such a measurement can not be considered as obvious from the patent to Bijawat. Bijawat does not show any measurement of an amplitude and a phase of a resistance. Just the use of a capacitor for measurement, which the

Examiner presented in his arguments, does not provide a hint for an impedance measurement.

It is therefore believed that the Examiner's grounds for the rejection of the claims can not be considered as not tenable. The new features of the present invention which are defined in the claims are new when compared with the patent to Bijawat.

The patent to Bijawat also does not disclose an algorithm, which for evaluation of the detection signal provides a separation of the measured signal into signal parts from a medium and from an object enclosed in the medium. This is also not disclosed in the patent to Bijawat and can not be derived from it as a matter of obviousness.

What the patent to Bijawat actually discloses is that a plurality of sensor elements 38, 48, 40 and 42 can be arranged in the housing of the sensor 10 to localize possible different types of objects enclosed in the medium. For example a sensor element 38 is used for detection of wires through which current flows, a sensor element 40 is used for information about the presence of metal objects behind a surface, and a sensor element 42 is used for information about studs composed for example of wood. The measuring signal measured by such a sensor in the patent to Bijawat, wherein a part is produced by the enclosed object

for example a metal conductor, and a part is produced by an enclosed medium for example a wall, is not disclosed in the patent to Bijawat.

It is therefore believed that claim 1 should be considered as patentably distinguishing over the prior art represented by the patent to Bijawat, and should be allowed.

Applicant also submitted additional new claim 20 which defines the cavitation of the measuring results with a displacement information. The features of claim 20 are also not disclosed in the patent to Bijawat and can not be derived from it as a matter of obviousness, and therefore claim 20 should be allowed as well.

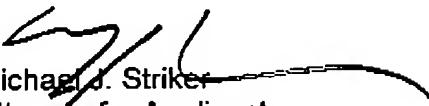
As for the dependent claims, these claims depend on claim 1, they share its presumably allowable features and therefore they should be allowed as well.

Reconsideration and allowance of the present application is most respectfully requested.

Should the Examiner require or consider it advisable that the specification, claims and/or drawings be further amended or corrected in formal respects in order to place this case in condition for final allowance,

then it is respectfully requested that such amendments or corrections be carried out by Examiner's Amendment, and the case be passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance, he is invited to telephone the undersigned (at 631-549-4700).

Respectfully submitted,

  
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